(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 16 June 2005 (16.06.2005)

PCT

(10) International Publication Number WO 2005/054443 A1

- (51) International Patent Classification⁷: C12N 1/04, 1/20
- (21) International Application Number:

PCT/CA2004/002025

(22) International Filing Date:

30 November 2004 (30.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/481,734

3 December 2003 (03.12.2003) U

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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,

[Continued on next page]

(54) Title: CRYO-PROTECTIVE AGENTS FOR MICROORGANISMS

A flow diagram outlining the preparation and lyophilization of a C. diphtheriae culture. Lyophile Reconstituted in 0.3ml Phytone™ Peptone mediun 0.1 mL Incubated at 37oC for 43 hours Phytone™ Peptone Resuspended in 5ml of Phytone™ peptone Medium 1.5 ml to 90 ml medium 1º SF 2 x 90 ml Phytone™ Peptone Medium 5 ml to 250ml medium 2º SE 10ml per tube Centrifugation 6000 g for 10min 4oC Cell pellet resuspended in 5 ml of Lyophilization Medium 5%MSG+10%YE 10%PP+10%YE+0,25%Agar 10%Skim Milk 10%Yeast Extract 10%Phytone™ Peptone (0.63ml 40% MSG) (2ml+2ml+1ml) 0.25ml/lml glass vial Freeze Dry

Store at 4 °C

(57) Abstract: A lyophilization medium for a microorganism is provided wherein the medium is substantially free of animal-derived products and comprises yeast extract and monosodium glutamate. The lyophilisation medium can be used for cryoprotection of strains of bacteria such as *Corynebacterium diphtheriae*. Method for preparing a freeze-dried culture of a microorganism using the lyophilization medium, and lyophiles of microorganisms are also provided.

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SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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